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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/069,482

02/27/2002

Dennis R Mullins

1483-21

3418

7590

11/21/2005

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EXAMINER

TON, DANG T

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,482

Applicant(s)

MULLINS, DENNIS R

Examiner

DANG T. TON

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/27/2002.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

3. Claims 29-56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 29 lines 6-7, " the or each the Earth station " has no antecedent basis. The same is true with the terms " the frame period" and " the following frame period" recited in claim 29 ; " the next following frame period" recited in claim 30; " a said frame " , " the from terminal direction " , and " the to terminal direction " recited in claims 31-32,33,34, 35,36,37,,49,48,52,and 53 ; " the bandwidth" recited in claim 33 ; " a said frequency " recited in claims 36 and 37 ; " a the TDMA frame" recited in claim 55.

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Claims 43-47 are vague and indefinite because is not known the metes and bounds of the claimed invention.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 29,30,36-41, and 44-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Black et al. (6,377,561).

For Claims 29,30,36-41, and 44-47, Black et al. disclose data communication satellite system and method of carrying multi-media traffic comprising :

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at least one satellite (see box 10 in figure 1) ; at least one Earth station (see box 12 in figure 1), and a plurality of user terminals (see box 16 in figure 1) , the satellite being arranged to provide a link between each user terminal and the Earth station (see link 11 in figure 1), via communications channels, each channel comprising one or more timeslots in a repeating time frame on one or more frequencies, carried by a feeder link beam between the satellite and the or each the Earth station (see figures 3a-3c), and one of a plurality of user terminal link beams between the satellite and the user terminals , the satellite comprising a multiplexer for multiplexing the channels from multiple the terminal link beams onto each the feeder link beam (see box 817 in figure 8b), and a demultiplexer for demultiplexing the channels from onto each the feeder link beam onto multiple the terminal link beams (see box 817 in figure 8b); and further comprising at least one router for assigning channels to and from particular the terminal link beams in response to control signals from the Earth station , characterized in that the Earth station is arranged to send, during a first the frame period, channel assignment signals relating to channel assignments in a following the frame period, and in that the satellite (4) is

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arranged to control the router (112, 212) in accordance with the channel assignment signals in the following frame period;

in which the following frame period is the next following frame period (see figure 7c);

in which the satellite comprises means for time-demultiplexing the slots of each frame and the router is arranged to route slots of a single frame to different frequencies, or vice-versa, and to vary the routing of slots of a the frame on a the frequency (see figure 7c);

in which a single the beam is provided for each the user terminal (see column 7 lines 34-35);

comprising a plurality of the satellites covering a region of the Earth(see column 6 lines 6-15);

in which the satellites form a non-geostationary constellation(see column 6 lines 6-19); and in which the constellation provides global coverage(see column 6 line 19).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

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art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 31-35, and 48-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al. in view of Gilbert et al. (6,016,311).

For Claims 31-35, and 48-56 , Black et al. disclose all the subject matter of the claimed invention with the exception of number of the slots in the frame in the from terminal direction being different to that in the to terminal direction in a communications network. Gilbert et al. from the same or similar fields of endeavor teaches a provision of number of the slots in the frame in the from terminal direction being different to that in the to terminal direction(see abstract lines 13-19). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use number of the slots in the frame in the from terminal direction being different to that in the to terminal direction as taught by Gilbert et al. in the communications network of Black et al.

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The number of the slots in the frame in the from terminal direction being different to that in the to terminal direction can be implemented/modified into the network of Black et al. since it does teach TDMA frame of uplink and down link. The motivation for using number of the slots in the frame in the from terminal direction being different to that in the to terminal direction as taught by Gilbert et al. into the communications network of Black et al. being that it allocates bandwidth between the uplink and down link .

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al. in view of Wright et al. (6,366,776).

For Claim 42, Black et al. disclose all the subject matter of the claimed invention with the exception of applying a Doppler shift in a communications network. Wright et al. from the same or similar fields of endeavor teaches a provision of applying a Doppler shift correction (see column 23 lines 37-38). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use applying a Doppler shift as taught by Wright in the communications network of Black et al.

The applying a Doppler shift can be implemented/modified into the network of Black et al. since it does teach TDMA frame. The motivation for using applying a Doppler shift as taught by Wright et al. into the communications network of Black et al. being that it synchronizes the system.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al.

For Claim 43 , Black et al. disclose all the subject matter of the claimed invention with the exception of the user terminal comprising handheld terminal . However the handheld terminal is well-known in the art. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the user terminal comprising handheld terminal in the communications network of Black et al.

The user terminal comprising handheld terminal can be implemented/modified into the network of Black et al. by replacing the terminals with the handheld terminals. The motivation for using the user terminal comprising handheld

terminal into the communications network of Black et al. being that it adapts to the handheld devices.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Macridis et al. (2004/0203743) is cited to show a system which is considered pertinent to the claimed invention.

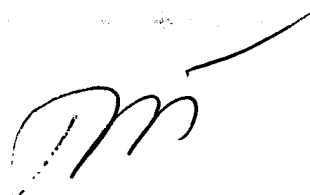
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANG T. TON whose telephone number is 571-272-3171. The examiner can normally be reached on MON-WED, 5:30 AM-6:00 PM and Thur 5:30-9:30 A.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Ton

A handwritten signature in black ink, appearing to be 'D. Ton', with a long horizontal stroke extending to the right.

DANG TON
PRIMARY EXAMINER